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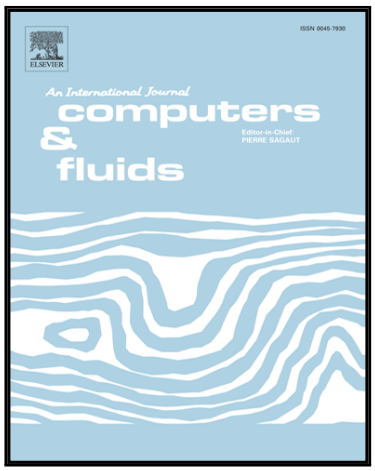

Global Spectral Analysis of Three–time Level Integration Schemes: Focusing Phenomenon

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PII: S0045-7930(17)30321-3
DOI: 10.1016/j.compfluid.2017.08.033
Reference: CAF 3588

To appear in: *Computers and Fluids*

Received date: 24 April 2017
Revised date: 17 July 2017
Accepted date: 26 August 2017

Please cite this article as: Tapan K. Sengupta, Pierre Sagaut, Aditi Sengupta, Kumar Saurabh, Global Spectral Analysis of Three–time Level Integration Schemes: Focusing Phenomenon, *Computers and Fluids* (2017), doi: 10.1016/j.compfluid.2017.08.033

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Highlights

- Focusing is shown as a linear mechanism by global spectral analysis.
- Three-time level Adams–Bashforth method shows focusing.
- Wavenumber of error depends on CFL number and independent of input length scale.
- We show focusing is related to absolute numerical instability.
- Use of compact filter, transforms absolute instability to convective instability

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